

ARANDELL 2017 GREEN TIER REPORT

Arandell has participated in numerous projects that have benefited not only the environment but the employees and outside stockholders. These projects have been developed in all divisions of the company. This is where we see the strength of the Green Tier program. Our associates and Green Tier committee thrive of the belief of continuous process improvement.

This process does not come without its challenges. Everyone is forced to do more with less. We are continuously looking for the loose ends. The waste opportunities people may not have thought about. This process starts with the audit of our corporate environmental worksheet. Here we can mine into the departments that may have new issue or existing issues that a new technology may help with.

Economic Trends

Catalogs continue to be a very successful method of marketing. Ecommerce is becoming more of a partner than a competitor to the catalog.

Projects to reduce Serious Environmental Aspects.

In House pallet repair

Arandell like most printers utilizes thousands of wooden pallets in the course of a year. These pallets are used to move “work in process” in the production area. There are many forces that can cause a pallet to become a waste as it moves in the process flow. Most of these damaged pallets were structurally sound but missing a front board. This one board is enough for the pallet to be rejected from the system and require a replacement. This board could be replaced without the pallet losing any strength or integrity.

We investigated what would be required to repair our own pallets. Through trial and error, a process was created to efficiently repair a pallet and return it to the process stream. Arandell was able to repair over 18,000 in 2017 alone and continues to use and refine the process today.

Roll wrap reduction

Our goal for 2017 is reduce our process line energy consumption and decrease our waste in our raw material over consumption by three percent. The project we chose to meet this goal was strip waste reduction. Strip waste comes from unwinding the unusable two or three raps of a new roll of paper before loading it into the press. These outside raps will have imperfections that need to be removed to avoid a web break. The process of prepping a roll before the study took place, varied by shift and by individual roll tender. The need for a standardized system was viewed as the method to meet our three percent reduction goal.



Arandell's team worked with the roll tenders to minimize the amount of strip waste taken off undamaged rolls. Their goal is to take no more than three wraps of strip. We have tracked the difference against the first quarter strip waste numbers. In the 1st quarter, and before starting the process, the average was 11.06 lbs. The average strip waste on undamaged rolls for the 2nd quarter was 6.04 lbs. Based on that difference, we saved over 45,000 pounds of paper in the 2nd quarter on white waste. The final calculations will also be in the 2017 Green Tier report

Over the course of the last 10 years, the overall white waste numbers in the pressroom had risen slowly and steadily to around 2.3 %. There was a clear opportunity to lower that number by taking less waste from undamaged rolls and to minimize the damage coming from roll handling in our warehouse.

Roll tenders were given clear guidelines on how much strip waste to take from undamaged rolls. They were trained in the process and held accountable through weekly supervisor audits. Reports are generated on a monthly, quarterly and yearly basis and are compared to the prior year for head to head results on a per roll basis.

Roll truck drivers are provided a monthly report on damaged rolls delivered to press and that is also compared to the prior year on a percentage basis. Their workflow was adjusted to minimize the number of times a roll is handled.

The first full year of the program produced remarkable results. The pressroom lowered the average amount of strip waste on undamaged rolls by 4.78 lbs. per roll, from 10.65 lbs. to 5.88 lbs. per roll. Based on running 43,593 rolls in the year, this adds up to 208,174 lbs. in white waste savings for the year. At \$.55 per lb. we were able to save \$114,495.

Roll receiving lowered the percentage of damaged rolls from 8.18% to 5.88%. The total difference in strip waste to the year of 2017 was 55,000 lbs. or \$30,000 in savings. This was achieved by handling the roll as few times as possible and a heightened awareness of the cost of damaged rolls.

Both programs are monitored by lead men and supervisors. Audits are performed every week in the pressroom. The monthly reports are distributed to the presses and roll receiving and reviewed with the roll tenders and roll truck drivers.

2017 Total Recycled Products

Paper	33,872,624 lbs.
Corrugated	1,208,398 lbs.
Plastic	58,952 lbs.
Metal	18,257 lbs.
E-Waste	2854.00
Pallets	17,657 pallets repaired



Future 2018

Our Membership in Green Tier allows us to have a peer group that is willing to help each other for the greater environmental good. Being able to learn from other Green Tier facilities is one of the best reasons for continued participation.

Our Current year is very busy moving forward with several projects. Our goal for 2018 is reduce our process line energy consumption and decrease our waste in our raw material over consumption. Two of these projects will be covered in our 2018 report. The first is working to reduce white waste during production run. The second will focus on reducing the amount of silicone used at press.

Total Recycled Products

- Paper: 31,567,380 lbs.
- Corrugated: 1,061,780 lbs.
- Plastic: 65,240 lbs.
- Metal 5,240 lbs.
- E – Waste 760.00
- Pallets: 16,942 pallets repaired

